The Great Basin Naturalist

Published by the
Department of Zoology and Entomology
Brigham Young University, Provo, Utah

Volume XIII December 30, 1953 Nos. 3-4

PACIFIC ISLANDS HERPETOLOGY NO. VIII, KOREA[1]

VASCO M. TANNER
Professor of Zoology and Entomology
Brigham Young University

The ten species discussed in this report were all collected in the proximity of Seoul, Korea. The writer is pleased to thank Capt. Ted Tibbitts of the U.S. 5th Epidemialogical Field Unit for these specimens. Captain Tibbetts, a former student of this institution, has sent many valuable reptile specimens to us. While he was stationed in Florida, he sent us many rare species for the museum collection. He is a good preparator, which makes the material doubly valuable.

The Korean peninsula, with a surface area of about 85,246 square miles, extends from Manchuria, 43° 2′ N. latitude, southward to 38° 12′ N. latitude. The Eastern most point, near the mouth of the Yalu River, is Maando, 124° 11′ East longitude.

The land boundary is formed in large part by the Yalu and Tumen rivers; which separate Korea from South Manchuria and Eastern Siberia. The Russo-Korean frontier, only 20 miles long, is about 80 miles from Vladivostok. Korea is divided into fourteen provinces, each of which is subdivided into counties and districts. Following Warld War II, the peninsula was divided into North and South Korea. In September, 1947, South Korea (the American Zone south of latitude 38° N.) had a population of between 20 and 21 million people, and North Korea (the Soviet Zone, north of 38° N. latitude) had 8 million making a total for the country as a whole of between 28 and 29 million inhabitants.

Seoul, the cultural center of Korea, and since 1392 the Capital, is located midway between the north and south extremities and not

(1) Contribution No. 138 from the Department of Zoology and Entomology.

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far from the west coast. It is the largest city with a population of about 1,100,000 people.

The country is very mountainous. The climate is similar to that of New England and Central East Atlantic States. The national economy is largely based upon agriculture. Mining, and related industries are concentrated in the northern zone. Rice, the staple food crop, is grown in small plots of a few acres in the southern zone. The forests have been badly depleted in the past. A program to restore them, which was initiated by the Japanese, is still being carried forward.

The reptile fauna of Korea is closely related to that of the surrounding regions. Slevin (1925) reported twenty-four species from this country. In this list there are two species recorded, which are not found in the Slevin list.

Family Discoglossidae

BOMBINA ORIENTALIS (BOULENGER)

Boulenger, 1890, Ann. Mag. Nat Hist. (6), V, p. 143.

BYU 11461-63 Near Mae-Bong, about on the 38 parallel (Capt. Ted Tibbitts) May 18, 1953

Snout flat, slightly rounded, no canthus rostralis; nostrils midway between eye and tip of snout; interorbital space narrower than the upper eyelids; paratoid gland long and narrow; no tympanum; vomerine teeth in two small groups behind and between the level of the choanae; upper surface of head, arms, and body covered with closely set tubercles which are capped with sharp black spines; arms, half the length of the head and body, with four fingers, third longest; a conspicuous patch of horny nuptial excrescences on the inner sides of the arm of the male, on the inner sides of the palmer pad, and first, second, and third fingers; heel reaches corner of mouth when the hind leg is extended along side the body; webbing of the toes extends practically to the tip; fourth toe longest; undersurface smooth, in life colored red with sharply defined irregular black spots; in spirits a dirty white instead of red.

The average measurements of the three male bell-toads, of this report, are as follows: Snout to vent, 49 mm., width of head 17 mm., interorbal width 4 mm.; fore leg 21 mm.; and hind leg 58 mm., These specimens, which are very uniform in size and coloration, were taken by Capt. Tibbitts on hill 1468 near Mae-Bong at an

elevation of about 2000 feet. He preserved them in alcohol and formalin, then wrapped them in cheese cloth. When they reached me the red color was present over much of the belly area, especially on the palms.

Family Bufonidae

BUFO BUFO ASIATICUS (STEINDACHNER)

Steindachner, Novara Exped., Zool., I, Amph. p. 29.

BYU 11456 Seoul, Korea (Capt. Ted Tibbitts) Sept. 23, 1953

Snout rounded, slightly flat, with a canthus rostralis; nostril just beneath the canthal angle, nearer the eye than the snout, tympanum round, small but distinct, and beneath the end of the long well developed paratoid gland; dorsal surface blackish with many tubercles of varying sizes, third finger longest; fourth toe longest; inner metatarsal tubercle prominent with cutting edge. The ventral surface grannular, whitish, suffused with a few blackish blotches. Measurements are as follows: tip of snout to vent 62 mm.; width of head 24 mm.; interorbital width 65 mm.; fore limb 33 mm.; hind limb 73 mm. This subspecies of the European Toad, *Bufo bufo* is widespread throughout North Eastern China, Southern Russia and Korea.

Family Brevicipitidae

KALOULA BOREALIS BARBOUR

Barbour, 1908, Bull. Mus. Comp. Zool., Vol. 51, p. 321.

BYU 11464 Yung-Dong-Po, Korea (Capt. Ted Tibbitts) May 5, 1953

Snout rounded, no canthus rostralis; eyes small and widely separated, snout as long as interorbital width; third finger longest, toes webbed at base; metatarsal strong with cutting edge; hind leg about as long as length from tip of snout to vent. Dorsal body covering smooth except for a few small pits around the head region. Color blackish above; beneath brownish.

Collected in May at an elevation of 1000 feet.

Family Ranidae

RANA JAPONICA (GUNTHER)

Gunther, 1858, Cat. Batr. Sal. Brit. Mus. p. 109.

BYU 11453-55 Korea National Forest near Seoul (Capt. Ted Tibbitts) July 12, 1953

Snout pointed, vomerine teeth two oblique patches on a line

near the center of the choanae and a little behind them. Nostrils nearer the end of the snout than the eyes; tympanum round, covered with a black streak which extends from the corner of the eye to the shoulders, diameter two thirds that of the eye; lower jaw streaked or blotched with a blackish line; third finger long; hind legs long, about as long as the body from tip of snout to vent.

Color, a whitish dorsal stripe, bordered by a dusky brown; ventral whitish.

Two young specimens show similar markings to those found on the adult male. This species is found in China and is common in Japan.

RANA NIGROMACULATA HALLOWELL

Hallowell, 1860, Proc, Acad. Nat. Sci. Phila., p. 500.

BYU 11283 F. No. 4	Surwon, Korea	(Capt. Ted Tibbitts)	May 2, 1953
11284 F. No. 5	Yung Dong-Po, Korea	(Capt. Ted Tibbitts)	May 12, 1953
11533-40 F. No. 6	5 Miles South of Seoul, Korea	(Capt. Ted Tibbitts)	April 25, 1953

Snout pointed with nostrils nearer the eyes than the tip of the snout; vomerine teeth in two patches between the choanae; interorbital width narrow, about one half the width of the eyelid. Tympanum not round, long axes a little greater than the width, first finger longer than second; length of arm tip of third finger 35 mm.; length of hind leg from tip of sixth toe to vent 108 mm.; length of body from tip of snout to vent 70 mm.; Distinct whitish dorsolateral fold extends from posterior corner of the eye to hind leg; between the dorsolateral folds and the dorsal white streak are two blackish bands with long narrow folds; the thighs and tibia are spotted with black dots or bars; the ventral surface is immaculately white.

Eight juvenile specimens, about a third as large as the adult reported above were collected in the rice paddies on April 25, 1953, by Captain Tibbitts. This species is widely distributed in Eastern Asia. It has been reported from Vladivastok in the north to Bangkok, Siam in the south.

Family LACERTIDAE

TAKYDROMUS AMURENSIS PETERS

Peters, 1881, Sitz. Ber. Berlin, Naturf. Fr., p. 71.

BYU 11561	Anyany, Korea Mountain top 1785	(Capt. Ted Tibbitts)	Nov. 18, 1953

Rostral broader than high, in contact with the supralabial, an-

terior nasal and internasal; two loreals, the large one separated from contact with the large anterior supraocular by a small scale. Supralabials six on one side and five on the other; infralabials five; temporals smooth; a row of granules between the supraoculars and superciliaries; four pair of submentals, the fourth pair longer than the other three combined; the large collar scales smooth; seven rows of keeled dorsal scales; eight rows of ventral scales, the lateral row slightly keeled; at about the middle of the body four rows of small keeled scales border the ventral large scales; four inguinal pores on each side; four rows of strongly keeled scales on the dorsal of the tail; lamellae on underside of fourth toe 27-25. Color light brownish above with black spots, bordered with dark brownish granules and a row of lateral whitish spots; undersurface whitish. Total length 156 (47 + 109) mm.

It will be noted that the specimen described above does not agree in all details with the descriptions of *amurensis*. It has four inguinal pores on each side while *amurensis* is described as having three on each side; *wolteri*, which is found in Korea, has only one inguinal pore on each side. This specimen does not have a white streak from the eye to the collar.

Mr Slevin reports this species from many localities in Korea.

EREMIAS ARGUS PETERS

Peters, 1869, Mon. Ber. Berlin Akad, Wiss., p. 61.

BYU 11457-60 Yung-Dong-Po, (Capt. Ted Tibbitts) May 7, 1953
F. No. 3 Korea

Rostral pentagonal, in contact with the first supralabials, and large supranasals; nostril small and round between three nasals; internasals smaller than the supranasals; prefrontals separated by two small median prefrontals (No. 11457); frontal wide anteriorly and tapering posteriorly, in contrast with the first supraocular; three supraocular, the posterior one small, separated from the superciliaries, anteriorly by a single and posteriorly a double row of granules; a pair of granular patches in contact with the first superciliaries, frontals, prefrontals, and anterior supraoculars; parietals not as long as frontal in contrast behind with a small interpartietal; two loreals, a long subocular in contact with the fifth, sixth and seventh supralabials; nine supralabials; seven infrabials; dorsal surface of body covered with small granules; a collar of ten large smooth neck scales;

ventral scales smooth, twelve across the abdomen. Tail with rings of larger, keeled, pointed scales. Color, ventral surface whitish, a bluish cast on the belly scales. Dorsal scales brownish with three rows of circular patches of blackish scales with a few white scales in the center, on each side of the medium line. This is a very attractive looking lizard. It was taken on a small grassy hill.

Family Colubridae

ELAPHE DIONE (PALLAS)

Pallas, 1773, Reise Russ. Reichs, II, p. 717.

BYU 11281	8 Miles Southwest of Seoul, Korea	(Ted Tibbitts)	May 20, 1953
		(Ted Tibbitts)	May 20, 1953
11282	Aesium-Ni, Korea	(Ted Tibbitts)	May 23, 1953

The description of specimen No. 11281 is as follows: Rostral broader than high, in contact with the first supralabial, anterior nasal, and both internasals; frontal with a broad base in contact with the prefrontals; parietals longer than the frontal; nostril large, between two nasals; one loreal and one preocular, not in contact with the frontal; two postoculars, and one supraocular; eight supralabials. Anterior chin-shields long, in contrast with the five anterior pairs of infralabials. Twenty-three rows of smooth dorsal scales at middle of the body; one hundred ninety gastrosteges, seventy-three urosteges; anal divided. Color, in spirits, light tawny, with many irregular dark crossbars. Under surface, yellowish with three rows of longitudonal blotches. Length 602 mm.

A widely distributed species in north-western Russia, northern China, and Korea.

NATRIX TIGRINA LATERALIS (BERTHOLD)

Berthold, 1859, Nachrichten Ges. Wiss. Goettingen, p. 180.

BYU 11280 F. No. 1	8 Miles Southwest of Seoul, Korea	(Capt. Ted Tibbitts)	May 20, 1953

Rostral broader than high, in contrast with the first supralabial, anterior nasal, and internasals; prefrontals in contact with the supraoculars; frontal broader than the supraoculars; parietals large; supralabials seven; infralabials nine; one loreal; two preoculors; three postoculors; two large chin shields; second pair in contact with infralabials four, five and six; nineteen rows of keeled body scales; anal divided; urosteges seventy. Color tawny olive with reddish cast in the lateral scale patches between the black spots of the anterior third of the body; posterior portion of the dorsal scales blackish with

same greenish lateral scales; ventral scales whitish anteriorly, becoming blackish in the caudal area. Length 674 mm. Collected on a small grassy hill 8 miles south-west of Seoul.

Family Crotalidae

AGKISTRODON BLOMHOFFII BREVICAUDUS STEJNEGER

Stejneger, 1907, Herp. of Japan, Bull. 58, U.S. Nat. Mus. pp. 463-467.

BYU 11452 7 miles Southeast of Seoul, Korea (Capt. Ted Tibbitts) June, 1953

Rostral as broad as high; internasals small; frontal a little longer than broad; supraoculars as long as the parietals; nostral in the anterior edge of the large anterior nasal; two loreals; two preoculars; two postoculars; supralabials seven; infralabials ten; scale rows twenty-one; single anal; forty-two subdivided urosteges. Color grayish with a series of black blotches on each side of the dorsal line, top of head black with a streak of yellow extending back from the eyes and above the black stripe which is above the supralabials; under surface black posteriorly, becoming mottled with white anteriorly.

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